

REMARKS

Upon entry of the present amendment, the claims remaining in the application are 1-4, 13-19, 21, and 24-30.

The claims have been amended to overcome the 35 USC 112 rejection.

The Examiner contends that claim 30 is rejected under 35 USC 103(a) as being unpatentable over Seeman '918. Applicant respectfully traverses.

Seeman '918 does not disclose or make obvious "a hydrocarbon fuel gas mixture which includes: 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane", as set forth in currently amended claim 30.

Indeed, the Examiner concedes that Seeman does not teach 90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and 10% by volume of propane.

However, the Examiner contends the proportions are so close that one would have expected them to have the same properties.

First, it is not clear what proportions the Examiner is referring to.

If the Examiner is referring to Seeman, col. 3, lines 3-8, this clearly does not teach or make obvious 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane, as claimed by applicant.

In particular, that Seeman passage does not even teach or make obvious 90 percent by volume of a mixture of methylacetylene, propadiene and propylene.

In addition, that Seeman passage does not teach or make obvious 10 percent by volume of propane.

Furthermore, that Seeman passage teaches 6.37 weight percent of butanes, which is not claimed at all in applicant's claim 30.

The distinction becomes even greater if the Examiner is referring to Seeman, column 4, lines 22-25.

That Seeman passage calls for 1 to 10 volume percent of a hydrocarbon containing an acetylene triple bond. In contrast, applicant does not claim 1 to 10 volume percent of a hydrocarbon containing an acetylenic triple bond. Furthermore, that Seeman passage calls for 99 to 90 volume percent of a methyl acetylene/propadiene gas, which contains 6.37 weight percent of butanes, 41.73 weight percent of methylacetylene and propadiene, 44.24 weight percent of propylene, and 7.66 weight percent of propane. Such Seeman disclosure teaches away from the 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane, as set forth in applicant's claim 30.

The Examiner contends that applicant's claims do not exclude other gases such as butanes or hydrocarbons containing an acetylenic triple bond in the gaseous mixtures claimed. Applicant respectfully traverses this contention.

Because applicant is claiming "90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane", and this totals 100% by volume, this inherently excludes other gases such as butanes or hydrocarbons containing an acetylenic bond.

Applicant respectfully submits that applicant is not duty-bound to exclude other gases or other substances.

However, applicant respectfully submits that applicant's claim as currently amended, not only excludes other gases such as butanes or hydrocarbons containing an acetylenic triple bond, but also excludes other substances because the amounts claimed by applicant total 100 percent.

The Examiner also contends that applicant does not specify the proportions of methylacetylene, propadiene and propylene in the first gas mixture. The Examiner is correct, applicant does not specify such proportions.

The Examiner goes on to state that this permits an infinite number of variations in the weight percentage compositions from the prior art on which the present claims read.

Applicant respectfully submits that this does permit an infinite number of variations in the weight percentage compositions. However, in order for any such variation to anticipate or make obvious applicant's claim 30, it would be necessary for the prior art to teach such a variation which results in 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane, which the prior art does not teach or make obvious. Thus, applicant respectfully traverses the Examiner's contention concerning the verbiage "from the prior art on which the present claims read".

Apparently, the Examiner is not convinced by his own aforementioned contention, in view of the fact that the Examiner goes on to state that even if the compositions stated in Seeman were not to fit squarely within applicant's claim ranges, the weight percentage composition possibilities claimed by applicant would overlap the weight percentage composition of Seeman. Applicant traverses this contention.

First, applicant is not claiming a range of anything. Applicant is specifically claiming 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane.

Secondly, it is respectfully submitted that there are no "ranges" disclosed by the reference which overlap with the specific mixture claimed by applicant.

In light of the foregoing, it is respectfully requested that the 35 USC 103(a) rejection of claim 30 be reconsidered with a view toward withdrawing same.

The Examiner also contends that previous claims 1-8 and 21 are rejected 35 USC 103(a) as being unpatentable over Virey. The Examiner further alleges that previous claims 13-19 and 24-29 are rejected under 35 USC 103(a) as being unpatentable over Virey in view of Eagle et al. Applicant respectfully traverses these rejections.

It is respectfully submitted that Virey does not teach or make obvious:

“A method of heating glass contacting surfaces”, as set forth in applicant’s claim 1; nor
“heating said glass contacting surfaces to a predetermined operating temperature”, as further set forth in applicant’s claim 1; nor

“said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame”, as further set forth in applicant’s claim 1; nor

“said predetermined gas comprises a hydrocarbon fuel gas mixture which includes: 90 percent by volume of a mixture of methylacetylene, propadiene and propylene; and 10% by volume of propane”, as set forth in applicant’s currently amended claim 1; nor

“said heating of said glass contacting surfaces to said predetermined operating temperature is done before said glass contact surfaces begin a production run”, as set forth in applicant’s claim 2; nor

“said heating of said glass contacting surfaces to said predetermined operating temperature is done to maintain said glass contacting surfaces at said predetermined operating temperature during a production run”, as set forth in applicant’s claim 3; nor

“said heating of said glass contacting surfaces to said predetermined operating temperature is done before said glass contacting surfaces begin a production run, and is also done to maintain said

glass contacting surfaces at said predetermined operating temperature during a production run", as set forth in applicant's claim 4; nor

"at the start of production, heating said glass contacting surfaces using a mixture of methylacetylene, propadiene and propylene with the addition of approximately 10 percent air" as set forth in applicant's claim 21; nor

"after said glass contacting surfaces have warmed-up, said glass contacting surfaces are heated with only said mixture of methylacetylene, propadiene and propylene", as further set forth in applicant's claim 21.

The Examiner concedes that Virey does not teach mold heating, *per se*. The Examiner further concedes that Virey does not teach mold heating prior to or during a production run.

It is the position of the Examiner that the recitation of "90 percent by volume of a mixture of methylacetylene, propadiene and propylene, and 10% by volume of propane" reads on the disclosed hydrocarbon mixtures of Virey. Applicant respectfully traverses this contention.

Virey discloses a mixture which contains 2 to 5 percent butadiene by volume (where, in contrast, applicant does not claim or require butadiene in any percentage), 2-5 percent butene by volume (where, in contrast, applicant does not claim or require any volume of butene), and 5 to 8 percent propane by volume (where, in contrast, applicant requires 10 percent by volume of propane).

Furthermore, Virey specifically requires at least 15% of a constituent in respect of which the ratio of the number of carbon atoms to the number of hydrogen atoms is higher than 0.75. It is respectfully submitted that none of applicant's claims specify or require a gaseous hydrocarbon comprising at least 15% of a constituent in respect of which the ratio of the number of carbon atoms to the number of hydrogen atoms is higher than 0.75.

The Examiner further concedes that Virey does not teach mold heating, *per se*. However, the Examiner contends that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to expect mold heating to occur in the process of Virey because the requirement for an oxygen-rich combustion in the flame and a minimum desired temperature suggested that mold heating would have been inherent in the mold lubrication process.

The Examiner further concedes that Virey does not teach mold heating prior to or during a production run. However, the Examiner contends that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to heat molds prior to or during a production run since mold lubrication was done during a production run and Virey taught preferred flame characteristics.

Applicant respectfully traverses the above-mentioned Examiner contentions based on the following.

Claims 1-8 are not obvious in view of Virey. Indeed, Virey directs the artisan away from the method required by applicant's claims 1-8. In particular, Virey teaches a process for providing a lubrication layer on a surface of an object which contacts an article, in which the layer of lubricant is periodically deposited onto the surface, the process comprising producing said layer of lubricant by an oxygen-fuel superstoichiometric flame having a temperature higher than 2000° K. and an oxygen factor greater than 1, and injecting a gaseous hydrocarbon through the flame for a given period of time, the gaseous hydrocarbon comprising at least 15% of a constituent in respect of which the ratio of the number of the carbon atoms to the number of hydrogen atoms C/H is higher than 0.75, the rate of injection of the hydrocarbon through the flame and the temperature of the flame being controlled in such manner as to obtain a porous layer of carbonaceous particles capable of burning in air when they are transferred onto a surface of the article when the temperature of the

article is equal to at least 500°C.

The burden of establishing obviousness rests upon the Examiner espousing such. *Stratoflex Inc. v Aeroquip Corp*, 713 F2d at 1534, 218 USPQ at 875 (Fed Cir 1983) .

The opportunity to judge by hindsight is particularly tempting. *In re Gartside*, 203 F3d 1305, USPQ2d 1769 (2000) (guarding against falling victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher).

The test to be applied is whether the claimed invention would have been obvious to one skilled in the art when the invention was made, and not to an Examiner after learning all about the invention. *Stratoflex Inc. v Aeroquip Corp*, 713 F2d 1530, 1538, 218 USPQ 871, 879 (Fed Cir 1983).

In light of the foregoing, applicant respectfully submits that Virey teaches away from applicant's invention.

Accordingly, applicant respectfully requests that the Examiner reconsider the 35 USC 103 rejection of claims 1-8 with a view towards withdrawing same.

Claims 13-19 were initially rejected under 35 USC 103 as being unpatentable over Virey in view of Eagle. The Examiner concedes that Virey does not teach changing the gas mixture while maintaining the flame to either inhibit or promote carbon skeleton formation. However, the Examiner contends that Eagle teaches similar processes wherein carbon deposits are taught to be removed by adding methane to a gas mixture fitting applicant's description of the gas. The Examiner further contends that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to change the mixture of Virey with natural gas because Eagle taught that a carbon deposit could be removed from a plunger by increasing the methane proportion in a MAPP gas mixture.

Applicant respectfully traverses the 35 USC 103 rejection of claims 13-19 based on the following.

Virey and/or Eagle, taken singly or in combination, fails to teach or suggest “said heating of said glass contacting surfaces is started with a 100% mixture of methylacetylene, propadiene and propylene to inhibit carbon skeleton formation; then there is introduced a small quality of natural gas which has extra hydrogen atoms to give a suppressive influence for carbon formation; and said heating of said glass contacting surfaces is maintained to avoid any chance of dirty glass contacting surfaces”, as required by applicant’s claim 13 and claims 14-19 depending directly or indirectly therefrom.

It should be noted that the C-53 gas disclosed by Eagle is not “a 100% mixture of methylacetylene, propadiene and propylene” as required by applicant’s claim 13. In addition, when the Examiner asserting obviousness must rely upon a combination of prior art references to establish obviousness, the Examiner bears the burden of showing some teaching or suggestion in these references which support their use in combination. *W.L. Gore and Associates Inc v Garlick Inc*, 721 F2d at 1552, 220 USPQ at 312. It is legal error to place this burden on the applicant.

The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some “teaching, suggestion or reason” to combine cited references. *Gambro Lundia AB v. Baxter Healthcare Corp*, 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997).

The opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously. *In re Dembiczak*, 175 F. 3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999); *In re Gartside*, 203 F.3d 1305, 53 USPQ 2d 1769 (2000) (guarding against falling victim to the insidious effect of a hindsight syndrome wherein that which

only the inventor taught is used against its teacher).

Whether a motivation to combine prior art references has been demonstrated is a question of fact. Winner International Royalty Corp. v. Wang, 202 F.3d 1340, 1348, 53 USPQ2d 1580, 1586 (Fed. Cir. 2000).

It is impermissible for the Examiner to first ascertain factually what applicant did, and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct applicant's invention from such prior art. In re Shuman, 361 F.2d 1008, 1012, 150 USPQ 54, 57 (CCPA 1966).

The test to be applied is whether the claimed invention would have been obvious to one skilled in the art when the invention was made, not to an Examiner after learning all about the invention. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538, 218 USPQ 871, 879 (Fed. Cir. 1983).

Inventions must be held to be nonobvious where neither any reference, considered in its entirety, nor the prior art as a whole, suggested the combination claimed. Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 932-33 (Fed. Cir. 1984).

Nowhere does the Office Action indicate where in the prior art there might be a suggestion of combining teachings of the individual references, or how, if there was such a suggestion, such combination would equal any invention claimed by applicant.

In view of the foregoing, applicant respectfully requests that the Examiner reconsider the 35 USC 103 rejection of claims 13-19 with a view toward withdrawing same.

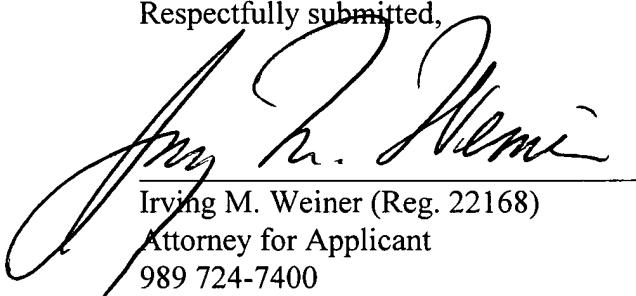
The foregoing distinctions and arguments apply with even greater force to currently amended claims 21, 24-26 and 30 and previously amended claims 28 and 29, which are clearly patentable over

the cited art.

The application is now believed to be in condition for allowance and a notice to this effect is earnestly solicited.

Favorable reconsideration is respectfully requested.

Respectfully submitted,

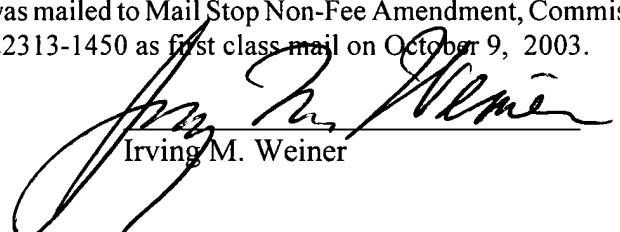


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I hereby certify that the foregoing amendment was mailed to Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313-1450 as first class mail on October 9, 2003.



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